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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,015	08/20/2003	Norimitsu Abe	02887.0247	4884

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Finnegan, Henderson, Farabow,
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Washington, DC 20005-3315

EXAMINER

THEISEN, DOUGLAS J

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 10/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,015

Applicant(s)

ABE ET AL.

Examiner

Douglas J. Theisen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 9-17 is/are allowed.
- 6) ☒ Claim(s) 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the ozonized gas remaining in an upper part of the advanced-ozonation chamber being supplied into the ozonized gas diffusing device in claim 6 must be shown or the feature(s) canceled from the claim(s). This feature is described on page 21, line 34 to page 22, line 2 in the description of Fig. 7. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 1b in Fig. 3 mentioned on page 17, line 30; 4a in Fig. 3 mentioned on page 17, line 36. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 30 and 31 in Fig. 10; 30 in Fig. 25. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "56" in Fig. 27 has been used to designate both the ozone generator and the upper space of the water treating tank; reference character "27a" in Fig. 9 has been used to designate both connecting line 27 and branch lines 27a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. Figure 27 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "TR_{es}" in Fig. 15, 16, and 17 mentioned on page 28. The drawings have the label "TR". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

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abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

7. The disclosure is objected to because of the following informalities: on page 4, line 25 one occurrence of "in the" should be deleted; on page 18, line 24 "decompose" should be "decomposed"; on page 20, line 17 "chamber 22" should be "chamber 26"; on page 21, line 11 "and the" should be deleted; on page 22, line 9 "colleted" should be "collected"; on page 39, the sentence beginning on line 33 is incomplete; on page 17, lines 26 to 31 the phrase "with its open lower end positioned near the bottom of the water treating tank 1" appears to be referring to "a clean water delivery line 1b" when it should be referring to "impure water conducting pipe 14".

Appropriate correction is required.

Claims

In claim 6 "ozonization chamber" and "ozonizing chamber" have both been used. In the description of Fig. 7 "ozonation chamber" has been used. It is suggested that for consistency one term be used to describe the chamber.

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In claim 7 “ozonizing tank” and “ozonization tank” have both been used. In the description of Fig. 8 “ozonation tank” has been used. It is suggested that for consistency one term be used to describe the tank.

In claim 10, line 8 it is suggested that “sources” be changed to “source”.

In claim 12, line 11 it is suggested that “measure” be changed to “measured” and in line 3 “an” be changed to “a”.

In claim 13, line 12 it is suggested that “measure” be changed to “measured”.

In claim 16, line 15 it is suggested that “sources” be changed to “source”.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 6 recites the limitation “the residual ozonized gas not dissolved in water and accumulated in an upper part of the ozonic water tank” in lines 9-11 and “the ozonized gas remaining in an upper part of the advanced-ozonation chamber”. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 7 recites the limitation “the residual ozonized gas not dissolved in water and accumulated in an upper part of the ozonic water tank” in lines 9-11 and “the ozonized gas accumulated in an upper part of the advanced-ozonation tank”. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

12. Claims 1-5 and 9-17 are allowed.

13. Claims 6-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: The reasons for allowance are that the closest prior art, Japanese patent no. 61249589 A to Yamaguchi, describes a water treatment system having a water treating tank (tank 11) having a water inlet (18), an ozonized gas generator (lamp 13), and a UV light source disposed in the water treating tank (lamp 13). Yamaguchi does not describe a water treatment system in combination with an ozonic water tank for producing ozonic water and an ozonic water jetting device for jetting the ozonic water supplied from the ozonic water tank onto the UV-radiating surface of the UV light source. Yamaguchi does not describe an advanced-ozonation module comprising a cylindrical jacket defining a substantially straight passage, a UV light source having a UV-radiating wall having a UV-radiating surface, and an ozonic water jetting device including jetting nozzles penetrating a side wall of the cylindrical jacket.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Theisen whose telephone number is 571-272-1168. The examiner can normally be reached on Monday, Tuesday, and Wednesday 6:30 until 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

djt

DUANE SMITH
PRIMARY EXAMINER

[Signature]
10-27-04